# Health Pathways Newsletter of the Health Professions Career Opportunity Program

April 1999 Volume 21, No. 7

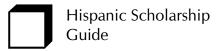
# **Premed Premier**

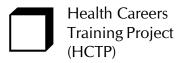
by: Keith Collision

# In this issue...

d	
	Field of Dentistry









# How to get into medical school—and survive once you're there.

Meet Brad. He's a 20 year-old undergrad, toiling away at his premed studies.

His nose buried deep in chemistry and biology textbooks; he's keeping his goal of attending medical school at the front of his mind, his dream of becoming a physician off in

the distance. He knows the path ahead is long and difficult, and with the Medical College Admission Test (better known as the MCAT) not too far in the future, our would-be medical student is beginning to worry. Besides the all-important standardized test, in a short while he'll have to begin thinking about letters of recommendations, filling out applications and hopefully, sweating through an interview or two. As if all this weren't enough, surviving once he's gotten into medical school will be another matter entirely, one he hasn't spent too much time worrying about — yet.

Perhaps you're a premedical student in the same situation. Although some amount of worry is both necessary and inevitable (it is, after all, your career we're talking about), knowing some tips for getting into medical school and surviving your first

couple of years can help allay some of your fears. Take heart that you're not the first person trodding this path, and, in fact, you can learn much from the people in whose footsteps you follow. If you're

confused as to what's required of you, what steps you need to take in order to become a physician, read on.

# Starting Out

Whether he knows it or not, Brad is actually one step ahead of the game. He's already started thinking about what medical schools will require of him. "Even if you're a sophomore in undergraduate school, get applications," says Harvey Castro, one of the American Medical Student Association's premedical associate trustees, who was recently accepted at the

(See **Premed** on page 6)

## **NAMME Annual Conference**

National Association of Medical Minority Educators Inc. September 16-21, 1999

"Meeting Old Challenges, Creating New Opportunities"
Dallas, Texas

Recruitment Fair: Saturday, September 18, 1999

To Request Conference Materials Contact: Marion L. McDowell (414) 229-6118. Marion@uwm.edu

# The SAFEGUARDS to Success in Learning

#### **Self-motivation**

Success in school has more to do with how much motivation you have than how much ability. The number one cause for students leaving school is lack of motivation. Are you doing what you want to do?

#### **Active**

Students who are active try to control the learning process as much as possible. Passive students let things happen to them and always have an excuse for failure.

## **Flexibility**

Very seldom do things go the way you plan for them to go. In all cases, be active in planning for what you think will happen, but be prepared to change if the unexpected arises...because it will.

#### **Efficiency**

The best students are efficient. They accomplish more in the time they have. This is important because time can be the biggest enemy of the student. More students have problems with organization and time use than any other study skill.

#### Goals

It is important to set goals for success, but many students set unrealistic ones. Your goals should be achievable, realistic, indeterminate, and short term.

## **Understanding**

Perhaps the biggest change in college is that higher level cognitive abilities are needed.

Memorization of facts is no longer sufficient. The understanding and utilization of concepts is stressed.

## **Analysis**

The successful college student, like a boy scout, is always prepared. This means trying to analyze problems, demands, skills, and solutions as early as possible.

## Responsibility

You are responsible for all of the success and failure that you encounter in college...no one else. The student that accepts this responsibility will find that they are more in control than those students who always find an excuse for their problems.

## **Development**

It matters little what your skills are now, except to the extent that you can learn from your weaknesses. The students who learn and improve from their experiences will come close to reaching their academic potential.

#### Skill

What you learn and develop are skills not magic. This means that they can be learned, improved, and strengthened.

Source: UC, Riverside, Learning Center.



Do you have a story or suggestions for *Health Pathways*? We welcome your contributions. Mail us your ideas, letters, or articles today! Announcements of scheduled events need to be sent to us at least six months in advance to appear in the newsletter. Be sure to include your name and address on all correspondence. The Health Professions Career Opportunity Program retains the right to edit all materials. Contact us at:

HPCOP 1600 Ninth Street, Rm. 441 Sacramento, CA 95814 (916) 654-1730 (916) 654-3138, fax

#### **Health Pathways**

Health Pathways (ISSN 0164-7598) is published four times a year by the Office of Statewide Health Planning and Development, 1600 Ninth Street, Rm. 441, Sacramento, CA 95814. Periodical postage paid at Sacramento, CA. Postmaster: Send addresses changes to Health Pathways, 1600 Ninth Street., Rm. 441, Sacramento, CA 95814.

#### **Guest Articles**

Views of contributing writers do not necessarily reflect the policy of the department, agency, or administration. Letters to the editor are encouraged. Although we do not pay for guest articles, manuscripts are welcome. We reserve the right to edit all material.

#### Editorial and business office

Health Professions Career Opportunity Program 1600 Ninth Street, Rm. 441 Sacramento, CA 95814 Tel.: (916) 654-1730 Fax: (916) 654-3138

#### Staft

- □ Josephine R. DeLeon, Chief
- ☐ Karen C. Munsterman, Associate Analyst
- □ Vernon Oakes, Program Secretary
- ☐ Student Assistants: Andrea Alvarez, Marie Manlangit, Rene Porche

Editors: Andrea Alvarez & Marie Manlangit

# What is Nursing?

Nursing is a profession that provides preventive and restorative care to the patient and family. It is a profession that helps individuals and their families to handle their illness, wellness, or loss. In short, nurses deal with the human response to illness. Nursing is a science, one that requires in-depth knowledge, skill, and understanding in order to care for the individual who is called a patient. It is a science that deals with the biological needs of the person but also with the individual's psychosocial and cultural needs.

A license to practice as a Registered Nurse (RN) is granted to an individual who has completed instruction at a Stateaccredited school and has successfully passed the State's qualifying exam.

Currently, there are three ways to become an RN: the diploma program, the associate of arts (AA) degree program, and the bachelor of science in nursing (BSN) program. While all three lead to RN licensure, each is different in the preparation



required and the length of the program.

## Diploma Program

A hospital-based program usually requires two years for completion. Over the years, there has been a shift away from hospital training programs. There are no current hospital-based programs in California.

## Associate Degree Program

These programs are generally 2-3 years in length. Upon completion of the program, graduates are granted an associate of arts (AA) degree in nursing. While most of the general education courses are transferable to a bachelor of science program, some of the science and nursing courses are not.

## Baccalaureate Program

In addition to being eligible to take the RN licensure exam, graduates of four-year colleges or universities are awarded a bachelor of science in nursing. A BSN degree allows the most flexibility in nursing. In the future, it may be the minimum requirement for entry into the practice of professional nursing. Because of the broad educational preparation, a BSN degree is most often required for positions in management and leadership. In addition, it lays the foundation for pursuing advanced degrees such as a Masters or Doctorate.

In summary, nursing is for people who care about people. Nursing is a profession in which you can make a difference and



can learn and grow with new roles. After completion of these programs, you'll start work immediately as a graduate nurse. Then you'll take a state board examination to qualify you to work as a registered nurse.

Information taken from "The Many Roles of Nursing." To request a copy, write to: HPCOP, 1600 Ninth Street, Rm. 441, Sacramento, CA 95814. (916) 654-1730.

## Western University of Health Sciences



You are invited to attend an Osteopathic Medicine Awareness Conference. Learn the history of Osteopathic Medicine and receive specific information about the Doctor of Osteopathy (DO) Program at Western University of Health Sciences in Pomona, California.

# Conference Dates/Locations for 1999:

Saturday, April 24 - Western
University, Pomona
Saturday, May 15 - University of
California, Davis
Saturday, August 28 - Western
University, Pomona
Saturday, October 23 - San Diego
State University
Saturday, November 13 - Western
University, Pomona

For registration information please call Western University at: (909) 469-5334 or (909) 469-5331.

# The Field of Dentistry

# The Decision to Pursue Dentistry as a Career

One of the most important decisions that a person will ever make is the choice of a career. The effect of this decision will be lifelong and the choice will determine the lifestyle, earnings, and prestige that a person will enjoy. Any academically talented student who is interested in a career in the health sciences should consider dentistry.

In many of the statesupported schools, where tuition costs are lower, strong credentials are still required to be competitive. Even those students who receive preferential consideration as residents of the state may need outstanding records to be accepted. If a student is strongly motivated toward a health science career, enjoys working with people, possesses good manual dexterity. and is willing to apply the selfdiscipline and hard work necessary to maintain a competitive academic record, there is a high probability that he/she can gain admission to dental school. Some of the factors to be considered in making a decision to pursue dentistry are discussed below.

The need for health professionals who can provide adequate dental care services to underserved minority communities is particularly great. In California, there exists a severe shortage of dentists and other dental health professionals in geographic areas where general health care services are minimal at best. Large metropolitan populations within inner-city ghettos and barrios, remote and impoverished rural

areas, and migrant labor camps are examples of areas where inadequate health care services exist. As a dentist, you may be able to improve the quality of dental health care delivered to these communities.



Dentistry provides its practitioners an income in the top 8% among United States citizens. A person choosing dentistry as a career will enjoy not only an excellent income but also the prestige that comes from being a member of a highly respected profession.

Dentists have the opportunity to be independent; a dentist is self-employed. The scope of dental care requires a multifaceted range of professionals who work as a team. A dentist typically employs one or more dental assistants, a dental hygienist, a dental laboratory technician, and a receptionist/ bookkeeper. It is relatively important for prospective students seeking a dental career to have a general knowledge of each team member's responsibilities.

## A General Description

Dentists are health care

practitioners concerned with the diagnosis, treatment, and prevention of problems associated with the hard and soft tissues of the mouth. They examine the teeth, mouth, and associated tissues, diagnose and treat diseases, restore defective teeth and tissue, and replace missing teeth. Most dentists practice in an office setting, typically in a solo practice with an average of four employees.

Most dental students enter a practice after receiving their professional degree, either a Doctor of Dental Surgery, DDS, or a Doctor of Dental Medicine, DMD. The two degrees are entirely equivalent in terms of the program completed and the rights conferred for practice. Most dentists do not take the additional years of internship and/or residency training that are required for physicians.

Most practicing dentists in the United States are engaged in general practice, although there has been an increase in the number of specialists. There are eight specialities recognized by the American Dental Association and all of these require additional training after the DMD or DDS. The eight specialties include the following:

- 1. Orthodontics is the treatment of problems relating to dental development, missing teeth, and other abnormalities affecting both normal function and appearance;
- 2. *Oral Surgery* is the diagnosis and operative services dealing with disease, injuries, and defects in the jaw and related structures:

(See *Dentistry* on page 14)

# From the Dentist's Side of the Chair

San Francisco High School Students Participate in a Clinical Observation Program

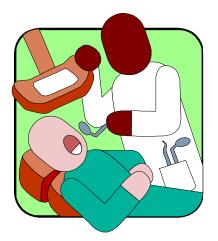
Four high school students donned gowns and gloves this winter to watch fourth-vear dental students and residents treat patients at San Francisco General Hospital's Family Dental Center. The University of California, San Francisco (UCSF) dental students explained procedures to the watchful teenagers, who asked a myriad of questions, handed instruments to the dental students, and observed fillings and cleanings from the dentist's side of the chair.

This chance to learn about and even to feel part of — the work in a dental clinic is offered through the Dental Mentoring Program, a new School of Dentistry activity for minority or disadvantaged high school students in San Francisco. The school hopes to spark students' intellectual curiosity at an early age and motivate them to sign up for other career-oriented. extracurricular programs. "We want to develop students' interests in taking science and math, and in the different careers they can have in the sciences," said Program Coordinator Prescilla Bradshaw.

Held twice during the school year, the Dental Mentoring Program introduces high school students to dentistry from a different vantage point. "They've all been patients themselves," explained Teresita Montalvo, supervisor of the Family Dental Center. "Now they find out what is going on outside the mouth when they are patients."

In the month-long inaugural

program, the four students from Phillip and Sala Burton High School spent a couple of hours a week in the clinic. Their mentors were UCSF dental students and residents, who had the teenagers make impressions of each other's teeth and operate the suction device. The mentors also talked about issues pertinent to dentistry, such as infection control and patient fear.



In addition to visiting the clinic, the teenagers attended workshops on career planning, interviewing skills, and self esteem. Sophomore Teresa Bello said she enjoyed the program, especially helping the dental students. She realized she could learn to do the same work. "It's easy," she said, "once you know what to do."

The program grew out of an educational partnership that the School of Dentistry established in fall 1996 with three San Francisco high schools: Burton, Thurgood Marshall Academic, and Mission. These schools, whose student bodies are composed largely of minority

and disadvantaged students, were selected for the partnership by the superintendent of schools. Future sessions of the Dental Mentoring Program will include students from all the partnership high schools and will last eight weeks. As part of the collaboration, high school teachers and counselors select the participants — students with good GPAs who have shown an interest in science. The high schools will also track the students' academic progress through school and college, to provide a means of evaluating the program's effectiveness in meeting its goals.

The School of Dentistry hopes that the Dental Mentoring Program will be the first in a stepping-stone series of high school and college programs, coordinated with other UCSF schools and departments, to build students' academic skills and to prepare them for health sciences careers. As the initial step, the Dental Mentoring Program gives young people the important first experience in a profession they may pursue. Through the years of study that lie ahead, Bradshaw said, "They will have this vision of what the end of the rainbow looks like."

Reprinted with Permission: Prescilla Bradshaw, UCSF Mosaic (Vol.5, No. 1) Summer 1998, 145 Irving Street, Suite 103, University of California, San Francisco, San Francisco, CA 94143-0934. (415) 476-2712. (**Premed**, from page 1)

University of Texas Medical School at Galveston. "That way you'll be in the mode, and start asking yourself questions about medicine you never thought about before."

As a sophomore, Brad has time to look for a mentor someone he can ask for a letter of recommendation when he needs one down the road. And. realizing the importance of extracurricular activities to admissions officers, he can volunteer at the local clinic. Becoming actively engaged in the community around him will naturally make Brad more attractive to medical schools that want students with proven interpersonal skills. Castro started a program called ElderCare in his community, through which students at his school took part in caring for the elderly. He believes that his involvement with this project helped him gain admittance into medical school.

Sharpening your profile is all fine and good, but when should Brad start filling out applications? As a sophomore, he need not put pen to application quite yet. But let's fast-forward a year. Our hapless sophomore is now a sophisticated junior with some practical experience under his belt.

Around February, the same time most premeds start registering for the MCAT, applications become available from the American Medical Colleges Application Service (AMCAS) and the American Association of Colleges of Osteopathic Medicine Application Service (AACOMAS). Both services are designed to streamline the

application process. Most U.S. medical schools will have access to your application if you submit it to the AMCAS or its osteopathic equivalent, the AACOMAS. But, do your homework to make sure the schools of your choice participate.



The AMCAS accepts applications from June 15 until November 15. The AACOMAS accepts applications from June 1 and keeps accepting applications throughout the year — though participating osteopathic schools have their individual deadlines. Does this mean Brad can wait until winter before filling out an application? Absolutely not. Many schools have a rolling admissions policy, which means applications received first will receive first consideration. Some early applicants might be accepted before late applications have even been reviewed. "Technically, you could be meeting the deadlines in late December, but if you haven't investigated how the process works, you might be applying when 75 percent of the class has already been admitted," says James Artis, associate dean of student affairs at Ohio University College of Osteopathic Medicine.

So, while Brad might be frolicking in the early months of his junior year, during his second semester he should start making an effort to collect applications from medical schools he is interested in attending. But, which schools should he focus on? And, how many should he apply to?

Dr. Zia Hashemi, author of *Mastering Medicine*, says that most medical students complete three to eight medical-school applications, but he's quick to point out that "the number of schools you target will depend on your unique background and your future dreams." An extreme case is that of Michael Greger, who applied to 54 medical schools, a task he now describes as "insurmountable." Greger, a second year medical student at Tufts University, recommends applying to as many schools as possible. Of the regrets he hears from fellow medical students, he says, "I wish I had applied to more schools" is the most common.

## Limiting Your Options

Nevertheless, Brad, busy with his studies and his girlfriend and just generally having a life, has to narrow down his choices. After all, he barely has enough money for a burger and fries these days, let alone application fees for each and every medical school. It's easier to gain admittance to schools in your state of residence, so Brad's best bet would be to fill out several applications for schools within his own state. Individual tastes will dictate what schools you apply to, but don't let the

(See **Premed** on page 12)



By: Andrea Alvarez

# Health Careers Training Project

# A Call for Psychiatric Technicians

The Office of Statewide Health Planning and Development's (OSHPD) Health Careers Training Project (HCTP) is currently working with the Department of Developmental Services (DDS), Department of Mental Health (DMH) and the Department of Corrections to fill over 3,600 Psychiatric **Technician job openings** from now until the year 2003. HCTP will be assis-ting DDS and DMH with the necessary training and recruitment efforts needed to fill these civil service positions throughout the State of California.

Psychiatric Technicians are part of a mental health team that includes doctors, psychologists, and rehabilitation therapists. The team of mental health professionals treat institutionalized patients who are mentally or developmentally disabled, and/or emotionally disturbed. The primary goal of a Psychiatric Technician is to rehabilitate individuals and return them to the community. According to the California **Employment Development** Department Labor Market Information: Psychiatric Technicians provide nursing, psychiatric, and personal care for patients; help maintain a clean and healing environment and assist patients with personal cleanliness; develop work skills

and social relationships and participate in recreational activities with their patients; maintain daily records of the physical condition of patients, including temperature, respiration and blood pressure; and administer medication and provide physical therapy under direct supervision of doctors, nurses, or other medical professionals. **Psychiatric Technicians** use medical equipment such as thermometers. blood pressure gauges,

Fullfiling the requirements to become a Psychiatric Technician takes 18 months of clinical and academic training. Certification includes:

--Qualifying scores on the written licensing exam

catheters,

syringes.

hypodermic

needles, and

--Completion of one of the following options specified by the California Board of Vocational Nurse and Psychiatric Technician Examiners: Board approved, twelve to eighteenmonth course offered by accredited California schools; a school for

Psychiatric Technicians outside California that offers a Board approved course of study; or coursework in nursing science and behavioral science combined with clinical or paid work experience.

Accredited schools in California that offer Psychiatric Technician programs are:

- Atascadero School of Psychiatric Technology; (805) 468-2000
- Cypress College; (714) 826-2220
- Grossmont Health Occupation Center; (619) 579-4780
- Mission College; (408) 748-2748
- Mt. San Antonio College; (909) 594-5611
- Napa College;
   (707) 253-3121
- Porterville College; (559) 791-2321
- Saddleback Community College; (714) 582-4700
- San Bernardino Valley College; (909) 888-6511
- Santa Rosa Junior College;
   (707) 527-4272
- Yuba College; (916) 741-6959

Most Psychiatric Technicians work in State hospitals. Individuals who successfully complete certification programs will be able to earn from \$2,270 to \$2.985 a month.

After one year of working as

(See *Psych.*, on page 10)

As part of the Health Careers Training Project's attempt to provide you with information regarding allied health occupations, each issue will focus on at least one allied health profession, and will include specific information regarding: job duties, working conditions, employment trends, salaries, entrance requirements, and advancement opportunities.

# **Health Care Interpreter:**

# Another Member of Allied Health Care

By: Andrea Alvarez

Health care interpreter certificate programs incorporate a curriculum that is designed to train bilingual and bicultural students to develop the awareness, knowledge, and skills necessary for effective language interpretation in health care settings. Through academic preparation, practical skills training, and service in community-based health care settings and educational organizations, certificate candidates learn:

- a) roles and responsibilities of a health care interpreter;
- b) basic knowledge of common medical conditions, treatments, and procedures;
- c) insight into language and cultural nuances for specific communities;
- application of interpreting skills in English and the language of service.

The certificate program is offered at the community college level. City College of San Francisco offers a specific noncredit certificate curriculum for students interested in becoming a health care interpreter.

#### **Training**

In general, training programs are designed for bilingual individuals who are interested in facilitating linguistic and cultural communication between patients and health care providers. They are competency based and may include lectures, discussions, simulations, field work, and special student

projects. Aside from working with course instructors, students will also work closely with language coaches to enhance their linguistic and cultural competencies. (The City College of San Francisco certificate program requires the ability to speak fluently in English and a second language and to commit to a training program consisting of three specific courses offered through the Colleges of Health Science Department).

After completing the courses required in a training program, students will be able to:

- describe the roles and responsibilities of a health care interpreter;
- explain the code of ethics involved in medical interpreting;
- discuss the similarities and/or differences between the biomedical culture and the patient's culture;
- acquire a basic knowledge of common medical conditions, treatments, and procedures;
- gain insight into language and cultural nuances in specific communities;
- have opportunities to explore and develop additional knowledge and skills necessary in the art of interpretation;
- demonstrate knowledge of managing the flow of the interpreting session and mastering of these skills through classroom activities and examinations;
- identify health issues, practices and beliefs of specific ethnic communities;

- identify strategies and culturally sensitive approaches in working with diverse cultures;
- demonstrate knowledge of crosscultural communication;
- gain a broader perspective in the different health care service areas;
- increase health care related terminology;
- identify strategies in self care;
- demonstrate skills in the development of a portfolio;
- discuss and demonstrate an understanding of the interpreter role and the scope of practice relative to other health care professionals in the assigned agency;
- discuss and demonstrate competence in elements of workplace, culture, and professionalism: time management, reporting, and accountability, maintaining personal and professional boundaries;
- apply skills learned to the field work settings: conflict management, cross-cultural communication, and technical aspects of interpreting;
- identify specific areas for self improvement needed for interpreting in health care settings.

For more information on the health care interpreter certificate program offered at City College of San Francisco contact the Health Science Department @ (415) 239-3220 or visit: www.ccsf.cc.ca.us/Departments/Health\_Science/interp.html

# Optometric Technician/Optometric Assistant

#### The Job

As a profession, optometry deals with problems of human vision. Helping optometrists with this work are paraprofessionals such as Optometric Technicians and Optometric Assistants.

Optometric Technicians are trained to assist the optometrist. Their duties are diversified. They assist in testing patients' vision, providing frame styling services, and instructing patients in contact lens handling. They administer vision therapy programs prescribed by the optometrist.

**Optometric Technicians** inform the patient of what is involved in examination and treatment procedures, eliminate unnecessary fears, and build the patient's confidence in the treatment program. Some technicians do laboratory work, modify conventional contact lenses, keep inventories of clinical materials, and maintain instruments. Some have office management responsibilities. In all cases these duties are performed under the supervision and guidance of the employing optometrist.

Optometric Assistants' tasks are generally less extensive and less complex than those of the Optometric Technician.
Assistants keep records, act as receptionists, assist with frame selection, and order prescribed lenses. They may do limited vision testing. Assistants also may provide patients with instructions on the handling of different types of contact and spectacle lenses.

Although many of the duties of Optometric Technicians and

Optometric Assistants are similar, the primary difference between the two lies in their education. Optometric Assistants are usually trained on the job by their employers; Optometric Technicians have extensive formal training that prepares them to handle nonroutine situations.

The specific duties of



Optometric Technicians and Assistants are determined by the employing optometrist, with the general trend being to assign the non-repetitive, complex tasks to the technicians who have the necessary technical educational background. In large practices, paraprofessionals may specialize in one or more of the following areas: contact lenses, vision therapy, chair side assistance, spectacle fabrication and dispensing, or office administration. Those employed in smaller practices may participate in many or all of these duties.

Most para-optometric employees work for optometrists engaged in private practice. Some are employed in clinics, government agencies, health maintenance organizations, and various branches of the armed services. Others specialize in the design and marketing of

eyeglasses and contact lenses, while some work in industrial settings improving job safety, efficiency, and productivity through vision-care programs. A few serve as faculty members teaching student technicians.

## **Working Conditions**

Optometric Assistants and Technicians can expect to work in clean, well-lit, pleasant surroundings. Although the work is not physically demanding, some standing is required. Attention to detail is necessary.

The standard workweek is 40 hours. In some practices, the paraprofessional may work a few hours on Saturdays or evenings, with corresponding time off during the week.

Employment prospects for qualified Optometric Technicians and Optometric Assistants are favorable, due to population growth, the increase in the proportion of older persons and a greater demand for vision-care services. Opportunities for trained Optometric Technicians are greatest in the largest urban areas, where more optometrists are located and where there are more large-scale Optometric practices.

In addition to job openings resulting from increased demand for these workers, many openings will occur because of the need to replace workers who transfer to other kinds of work, retire, or otherwise leave the labor force.

(See **Optometric** on page 10)

# (Optometric, from page 9) Wages, Hours, and Fringe Benefits

Earnings of para-optometric personnel vary by geographic region, academic and technical qualifications, and the nature of the employing practice.

Salaries for Optometric Assistants range from about \$900 to \$2,100 a month. Salaries of Optometric Technicians range from \$1,250 to \$2,500 per month.

# Entrance Requirements and Training

Optometric Assistants primarily develop their skills through on-the-job training by their employers.
Requirements include completion of high school, or its equivalent, preferably including courses in English, math, keyboarding, and

bookkeeping. Manual dexterity, a neat appearance, and tactfulness in dealing with patients are valuable assets for success on the job.

While Optometric Assistants usually develop their skills through onthe-job training by employers, preparation for a career as an Optometric Technician traditionally requires formal training offered by a para-optometric educational program. However, since there are few educational programs available in California, on-the-job training is increasingly common for both Optometric Technicians and Optometric Assistants. Available educational programs vary with institutions, as do admission requirements, although the latter usually include graduation from high school with courses in mathematics and keyboarding.

## Finding the Job

Applicants should apply directly with practicing optometrists, clinics, and health maintenance organizations. Graduates of formal training programs should use placement services provided by their schools. Openings may also be listed at California Employment Development Department Job Service offices and in the classified ads of the newspaper.

Source: State of California, Employment Development Department, Labor Market Information Division, Information Services Group, (916) 262-2162.



(**Psych**., from page 7)

a Psychiatric Technician for a state facility, advancement to Senior Psychiatric Technician is within reach. Unit supervisor, nursing coordinator, program assistant, program director, and/ or clinical director are also potential advancement opportunities. If you are currently serving in a related allied health care field, you may be eligible to apply, transfer, and/or translate your current work experience – including certifications and licenses – to a Psychiatric Technician position. For example, if you are now serving as a Certified Nurse Assistant, Medical Assistant, Licensed Vocational Nurse, or Psychiatric Technician Trainee (PTT), either in the state civil service system or the private sector, you may be able to transfer to a State Psychiatric Technician position depending on the respective state department's career path and upward mobility structure.

To find out about applying for one of the 3,600 Psychiatric Technician positions available throughout California, contact one of the following recruitment representatives:

#### **Department of Mental Health**

- Napa State Hospital: Jane Schwehr, (707) 253-5026
   Napa/Solano Co.
- Atascadero State Hospital: Karen Swangler, (805) 468-2202 Atascadero/San Luis Obispo Co.
- Patton State Hospital: Ken Dowell, RN, CNS, (909) 425-7885
   Patton/San Bernardino Co.
- Metropolitan State Hospital: Emily Wong, RN, ACNS, (562) 651-2234
   Norwalk/ Los Angeles Co.

# **Department of Developmental Services**

• Sonoma Developmental Center;

- Sonoma, Ca. Linda Garicotche, (707) 938-6496
- Agnews Developmental Center; San Jose, Ca. Rozsa Romvari, (408) 451-6156 or Patricia Hannum, (408) 451-7405
- Porterville Developmental Center; Porterville, Ca. Jerry Caskey, (209) 782-2597
- Fairview Developmental Center; Costa Mesa, Ca. Karen Strump, (714) 957-5131
- Lanterman Developmental Center; Pomona, Ca. Pat Montoya, (909) 595-7226

### Websites available are:

www.dds.ca.gov www.spb.ca.gov

# **Preparing for a Nursing Education**

High school students, who are thinking of pursuing a nursing education, need to take the courses required for the college they plan to attend. For most baccalaureate degree programs, this means classes in mathematics, biology, chemistry, and physics. It is also important to take classes in English, history, and literature, as these assist in the development of reading, writing, and communication skills. For an associate of arts (AA) degree, algebra and chemistry with lab are generally required. Several AA programs require a pre-entry examination.

If you are interested in getting a bachelor's of science in nursing (BSN), but did not apply to a college or university while in high school, you may apply to the college or university of your choice as a transfer student.

Most nursing programs begin at the junior level. Therefore, you may take your lower division coursework at a community



college, then apply for transfer once you've met the prerequisites of the nursing school of your choice. It is important that early in your decision, you check with your community college counselor and the school of your choice to obtain a list of the minimum

prerequisites you will need to qualify as a transfer student. Prerequisites vary from one school to another, but generally include a minimum grade point average (GPA), plus lower division inorganic and organic chemistry, anatomy, biology, microbiology, physics, psychology, and a variety of general education courses.

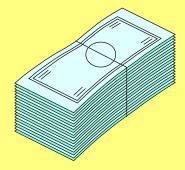
Admission requirements also vary from one school to another. These requirements can be obtained from the school of nursing of your choice by requesting (by phone or in writing) an application and general information on admission.

Information taken from "The Many Roles of Nursing." To request a copy, write to: HPCOP, 1600 Ninth Street, Room 441, Sacramento, CA 95814. (916) 654-1730.

# Hispanic Scholarship Guide

Vista, the nation's largest Hispanic magazine, has joined hands with Chrysler Corporation to develop college financial-assistance opportunities for Hispanics seeking higher education.

The guide lists three main sources of financial assistance based on need and merit: federal government, colleges and universities, and private institutions. It provides information on Pell Grants, Supplemental



Educational Opportunity Grants, Perkins Loans, Guaranteed Student Loans, Parents' Loans for Undergraduate Students, and College Work-Study Programs. For more information or to order a copy of the guide, contact *Vista* magazine at 999 Ponce de Leon Blvd., Ste. 600, Coral Gables, FL 33134, (305) 442-2462. Or, browse its website at www.HispanicScholarships.com.

Source: "Closing the Gap"
October 1998. Department of
Health and Human Services,
Public Health Service, Office of
Minority Health Resource Center,
P.O. Box 37337, Washington, DC,
20013-7337.

(**Premed**, from page 6)

prestige of an institution be your only guide.

"Premeds are so stressed about getting in anywhere, sometimes they forget the fact that they'll be living in these places," Greger says. So, if you absolutely despise the cold, perhaps the harsh winters of Boston aren't ideal for you. If being landlocked makes you nauseous, stay out of the Midwest. Though such concerns may seem trivial, you'll do better in medical school if you're comfortable with your surroundings.

About the same time Brad is looking over the admissions application he has from AMCAS, he's also filling out his MCAT application. True to its reputation, the MCAT is a marathon exam that admissions officers weigh heavily when deciding who gets in and who doesn't. Brad has a decent grade point average, but he knows a high MCAT score could help him get into some of the more prestigious institutions he's considering. Lots of his friends are taking review courses offered by the Princeton Review. Kaplan, and others, and he feels compelled to do the same. Should he?

The answer depends on what kind of student Brad is. Hashemi credits his solid performance on the MCAT to the review course he took. But simply shelling out the money won't cut it, he says. Hard work and a significant time investment are still the keys to doing well on the MCAT.

However, if you're already motivated and disciplined enough to study on your own, such courses might not be necessary. Greger was enrolled in a review course for a week before quitting. "There's not many secrets to the MCAT. Your test-taking skills should be up to snuff at this point," he says. "People who don't have discipline or motivation to sit down and study would most benefit by these courses." An alternative strategy is to take the diagnostic test that many review courses offer for free. This will give you a chance to learn what your strengths and weaknesses are. In the weeks leading up to the MCAT, bone up on the areas where you found that you needed the most improvement.



Exactly what does the MCAT measure? Unlike the SAT, this is not an aptitude test. The MCAT gauges mainly conceptual understanding rather than rote memorization. There are four components to the test: physical sciences, biological sciences, verbal reasoning, and a writing sample. The newer MCAT takes about six hours to complete, so be sure to eat your Wheaties that morning.

## Face to Face

Let's skip ahead a little further. Brad is now a senior. He's satisfied with his MCAT scores and has turned in a total of 14 medical school applications. After he sent in his initial, or primary, applications, he began receiving secondary applications, some asking for letters of recommendation. Fortunately for him, he had anticipated the need for these letters and procured them well in advance. Brad is feeling good about where he is at this stage of the game, knowing the bulk of the process lies behind him. There is yet another step, however, and it is crucial: the medical school interview.

Depending on your confidence level, you might be eager to strike a rapport with your future interviewer, or terrified at the prospect of a third degree interrogation at the hands of medical school admissions staff. Regardless, the key here is preparation. If your interview is out of state or, for that matter, out of town, consider traveling there a day in advance and spending the night in a hotel. Hashemi recommends finding the office in which you'll be interviewed at least 24 hours in advance. Plan to be there early — 15 minutes is ample time.

Dress sharply but conservatively. Leave ostentatious jewelry and outrageous neckties at home. The standards of any interview also apply here: maintain eye contact, pay attention to your posture, and be honest and straightforward. Arthur Culbert, director of student affairs at Boston University School of Medicine, says to go into an interview with three points you wish to convey about yourself, and make sure to relay them throughout the course of the interview. Our fictitious hero,

Brad, for instance, will make sure to talk about his volunteer work at the local clinic, the leadership role he played in his student government and, to round himself out, his involvement with a rock band while in school.

Do a little homework beforehand. Find out what the school's curriculum covers. Discover what controversial issues are being talked about on campus. The more enthusiasm and interest you demonstrate toward the school, the better chance you have of being admitted. Hashemi says that even if the school you're interviewing with isn't your first choice, act as if it is.

Brad has interviews with five medical schools and discovers that each one is easier than the last. He learns to expect the obvious questions, such as "Why do you want to become a physician?" and "Where do you see yourself in 10 years?" And, for the not so obvious questions, he's learned to pause and gather his thoughts. He's confident that his willingness to do the necessary course work will show through, as will his determination to become a physician.

As luck would have it, a couple of months after his last interview, Brad is accepted by the school that he had picked as his first choice. The first thing he should do is pat himself on the back. Some medical students say that it is harder to get into medical school than to stay in once you're there. Greger says he hears a lot of medical students, upon acceptance, say, "Now I've really got to start worrying." Not true at all, he says. "The people who didn't make it in, they're the ones to

worry," he says. "Medical schools will try very hard to keep you once you've started."

## School Time

Brad thinks he can handle the transition from premed to medical school. What he's really worried about is his academic work. He did well in his undergrad years, but can he expect similar success in medical school? Fortunately, many new medical students find they are familiar with some of the information given to them during their first year. Biology majors in particular are usually surprised by how much they already know.



Of course, not all medical students were biology majors, and even the sharpest of science majors can find themselves struggling to keep up. "I think the key is to not be opposed to trying new study styles," Culbert offers. "Oftentimes, what has worked for students in their undergrad years may not be completely successful in medical school." For instance, many students are used to studying by themselves. But, Culbert says, "it's a huge help in medical school to study in a small group or with somebody else."

It's not often that students don't do well because of a lack

of ability, though. More common are distractions arising from relationships, illness in the family, or financial constraints. Dr. Michael Drake, associate dean of admissions and student programs at the University of California, San Francisco, says it's important for students to have a well-balanced support system. "Students fail because they have uncontrolled or unsupportive family lives, or they try to get through medical school alone," Drake says.

Brad has his studies under control and is doing well during his first year. He's even taken up the guitar again and has been playing with a couple of friends he met down at the local tavern. This would be met with approval from Greger, who believes it's vital to have friends who are non-medical people. "You really need to find a source of self-esteem outside of medical school," Greger says. "If medical school is your life, then it really matters that you get a 78 instead of an 84 on a test...Always try to step back and see the big picture; to see how insignificant the grade on your next biochem test is." Sure enough, when Brad is strumming away on his old acoustic, medical school is the furthest thing from his mind.

Brad is confident that he'll get through medical school after all. He's keeping his sense of humor, has a study schedule, and is warming up to the medical school environment. Perhaps, then, the best advice is to keep it all in perspective, and remember who you are and just how far you've come.

Reprinted with Permission: The New Physician (Vol. 47, No. 3) April 1998; 1902 Association Drive, Reston, VA 20191. (703) 620-6600. (Dentistry, from page 4)

- 3. *Endodontics* deals with causes, diagnosis, prevention, and treatment of diseases of the pulp and other dental tissues that affect the vitality of the teeth;
- 4. *Periodontics* deals with diseases that affect the oral mucous membranes and other soft tissues that surround and support the teeth;
- 5. *Pediatric dentistry* is the treatment of children and adolescents;
- 6. Prosthodontics involves replacing missing natural teeth with fixed or removable substitutes:
- 7. *Oral Pathology* deals with diseases of the mouth; and
- 8. Dental Public Health involves the control and prevention of dental disease through organized community efforts.

The competition for admission to these specialty programs is keen, particularly in oral surgery and orthodonitics. Only students graduating in (or near) the top ten percent of their dental school class will be competitive for acceptance into these training programs. Dentists who complete the additional years of training and restrict their practice to a specific concentration, earn an average of above \$100,000 per year in income and it is not unusual for oral surgeons and orthodontics to make more than \$200,000 per vear.

# Planning a Program of Study

### **General Information**

There are approximately 55 dental schools in the United

States that are fully accredited by the Council on Dental Education of the American Dental Association. There are some variations among the schools in the requirements that must be completed before matriculation, but the majority will accept as minimum science preparation eight semester hours (or 12 quarter hours) each of general chemistry, organic chemistry, physics, and biology, all with the appropriate laboratories. These courses



should be those designated to satisfy degree requirements for science majors, not survey courses designed for non-science students. Some dental schools require additional courses in English, mathematics, and social sciences. Courses may be recommended but not required by dental school admission committees. Their experience has shown that these courses will aid the accepted applicant in making the transition from an undergraduate program to the rigorous professional program of dental school. Most entering students will have completed more than two courses in the biological sciences. Biochemistry, genetics, and physiology are often

recommended as courses that will make the first year of dental school less stressful. Study of the social and behavioral sciences is usually recommended to aid in the practice of modern dentistry by fostering an appreciation for the cultural and psychological differences in patients, thus improving patient management.

The majority of those accepted to dental school have obtained a baccalaureate degree before matriculating. Incorporating course requirements for dental school into your baccalaueate degree curriculum is strongly advised.

# **Choice of Undergraduate Major**

Students should be aware that "predentistry" is usually a preprofessional intention and not an academic major for which a degree may be awarded. Most predental students will obtain a Bachelor of Science (BS) or Bachelor of Arts (BA) degree while completing the requirements for admission to dental school. Dental admission committees are not particularly concerned with the undergraduate major, as long as applicants have completed the recommended basic science requirements. A good foundation in science includes zoology, biosciences, physiology, and anatomy. A student is likely to meet the requirements of most schools by choosing one of the majors in the basic science area. The largest number of applicants and accepted students are biology majors. However, there are other majors that have a high percentage of accepted applicants. It is not necessary to major in a science as long as the

(See *Dentistry* on page 15)

# Marking A Textbook vs. Taking Chapter Notes



In fact, it is one of the most efficient aids for retention and review that you can devise. A well-marked chapter can be reviewed in less than half the time it would take to re-read it entirely, and your review will be far more effective.

The main points, main supporting details, and the relationships between ideas, all jump to the eye; you don't need to study again on a section unless you can't recall the meaning of a marked passage. In that case, you can quickly skim to refresh your memory.

It has been proven that the student who takes lengthy, detailed chapter notes is an inefficient student. He could spend less time and get more out of it by marking the important points and making brief notes right in his book.

Of course, to be an effective aid to review, the marking must be done in a methodical, purposeful way. Many students read, pencil in hand, and simply underline anything that seems important or interesting at the time. This activity keeps them busy and may help them concentrate, but unfortunately it is no help later on. Bear in mind, then, that your markings are your *guide to review*.

Here are some hints on how to become a successful textbook marker:

1. WAIT to start marking until you have read and thoroughly understand the chapter or a significant portion of it. Then GO BACK and mark the MAIN

POINTS in any fashion you choose, so long as it is consistent; underlining, Roman numerals in the margin, key words in the margin, etc.

The main points are almost always *generalizations*, which the author then develops through subordinate ideas and details.

- 2. Be sure to indicate not only the main ideas, but the relationships between them. Doing this may require you to scrawl a word or two in the margin, use little arrows to connect points, or use a series of numbers and letters, or circle key transition words. Identify cause and effect, steps in a process, significant contrasts, etc., in this way.
- 3. If you feel you also need to note subordinate points and key details, such as the proofs the author advances for a given generalization, note them economically, for instance with little circled numbers, combined with the barest minimum of outlining of key words.
- 4. Use a variety of marks, and use them *consistently*. You may want to underline main ideas, circle important names and dates, or use brackets and marginal notes for an entire key paragraph.
- 5. Summary words or phrases in the margins or at the top or the bottom of the page are helpful, but use them sparingly and abbreviate.
- 6. Use the inside front or back covers to keep a running glossary of formulas, terminology, etc., and the page numbers on which they are defined.
- 7. Whatever system you use (you will work out your own system depending on the nature of the course and the textbook),

DON'T OVERDO IT. Don't mark the page just to convince yourself that you are studying. Make your marks simple, and have a good reason for every mark you make.

8. It is a good idea, if you have time, to review your markings immediately after you finish the assignment, before you close your book. This slows down the inevitable forgetting and leaves you with the main points in mind.

In a well-organized text, you can, with practice, formally outline the chapters right in the margins with Roman numerals and letters and a word or two of comment.

If you still feel the need of separate chapter notes, you can take your notes from your textbook marking and that way you will avoid writing down too much. But, the well-thumbed, well-marked textbook is the best review text of all.

From the Learning and Study Skills Center. University of California, Riverside.

(*Dentistry*, from page 14)

admissions requirements are met.

What factors should be considered when deciding on an academic major? Most predental advisors feel that you should select a major based on your interests and aptitudes. You will almost certainly do much better work and achieve better grades in subjects that are of interest and for which you have strong aptitude. The academic major will also help determine what alternatives you may have if you decide not to apply or if you are not accepted to dental school.

Cor	nplete this form	and check appr	opriate b	ox:
O new sub	oscription	C	O change i	n address
Name				
Address				
City		State	Zip	Code
Phone: (	)			<del> </del>
SUBSCRIBE	TO HEALTI	H PATHWA	ys - <u>I</u>	T'S FREE
SUBSCRIBE		H PATHWAY		T'S FREE
	Be a friend	d! Tell a frie	nd!	
	Be a friend	d! Tell a frie	nd!	



State Of California Gray Davis, Governor

Be sure to include your mailing label number with any correspondence regarding your subscription.